Roy Luo

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TECHNICAL SKILLS

Languages: Python, R, SQL, C, Bash
Platforms and Tools: Microsoft PowerBI, SQL Server, Git, Google BigQuery, Jupyter Notebook
Libraries: pandas, NumPy, Matplotlib, Plotly, Selenium, tidyverse, ggplot2, jsonlite, lubridate, dplyr

EXPERIENCE

SimCorp Dimension Analyst Intern

Precision Insight Consulting *Markham, ON*

- Used Data Format System (DFS) to import and load equity/bond trades, map to SCD transaction codes and use formulas to determine instrument type for validation
- Configured batch jobs to extract definitions from transaction table
- Built reference file of daily CAD/USD settlement
- Managed, reviewed and assigned Jira tickets as necessary

PROJECTS

League of Legends Jungle Tracker | *Python, pandas, Plotly, requests*

- Developed a Python application with Streamlit UI that takes in user input to retrieve data from a REST API
- Handled data with pandas to be used to generate on demand interactive visualizations with Plotly
- Implemented algorithms to identify certain players in ongoing matches and extract specified data
- Incorporated edge case and error handling with requests library alongside user input validation
- Visualizes players in-game position at specified time intervals in historical matches

Live Crypto Orderbook Dashboard | *R, SQL Server, PowerBI, jsonlite*

- Wrote an R script to take in live orderbook data from Coinbase websocket to be parsed through and reformatted
- Uploads data to SQL Server, loaded into PowerBI with DirectQuery and visualized with dashboard charts
- Ensured an efficient data processing pipeline that facilitates real-time updates and maintenance of a structured dataset for further analysis
- Maintains a near real-time cryptocurrency orderbook that displays important metrics such as mid-market rate, order prices, market depth as well as bid-ask spread

UFO Sighting Data Analysis | *R, tidyverse, ggplot2, dplyr, lubridate*

- Cleaned and transformed Kaggle datasets using R and it's respective data science libraries
- Applied data wrangling techniques to primarily time series and geographic data for proper data preparation
- Conducted exploratory data analysis to explore relationships and extract actionable insights
- Communicated results with ggplot2 visualizations
- Analyzed UFO sighting data to highlight factors about the lack of conclusive evidence concerning the existence of extra terrestrial life

EDUCATION

University of Waterloo

Honours Mathematics, Coop *September 2023 – April 2027*

McMaster University

Mathematics and Statistics - GPA: 3.96/4.00 *September 2022 – August 2023*

ADDITIONAL INFORMATION

Certificates: Google Data Analytics
Languages: English, Mandarin, French